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imagery analysis report

Romanian Tank Production Program (S)

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ROMANIAN TANK PRODUCTION PROGRAM (S)

INTRODUCTION

1. The Romanian Ministry of National Defense began a military research and development (R&D) program in 1969 that included provisions for the design and production of an indigenous medium tank. Through the correlation of photographic intelligence (photint) [redacted] it has been confirmed that the program is indeed underway. By 1983, two indigenous tank models had been developed and more than 200 tanks had been produced for internal use or export to the Third World. This report identifies the R&D, production, and testing facilities developed to implement this program. The report also addresses issues raised in the *US Foreign Intelligence Requirement Categories and Priorities*[1] concerning Romania's capabilities to perform research, development, testing, and evaluation on ground force systems and its ability to transfer arms and military assistance. (S/WN/NOFORN) 25X1

2. Although a member of the Warsaw Pact, Romania was not provided with modern Soviet weapons and equipment as were other members of the Pact. This situation was mainly the result of the cooling of relations between Romania and the Soviet Union after the 1968 Soviet invasion of Czechoslovakia and the perception by the Romanian government that the Soviet Union had aggressive intentions toward Romania. Because of these strained relations, the Soviets either would not give the Romanians the spare parts they needed or would only sell them parts that were considered too expensive. To overcome these difficulties and to allow the Romanians to eventually become independent arms producers, the Romanian Ministry of National Defense created in 1969 a military R&D program to modernize the weapons and equipment of the Romanian Army.[2] (C/WN/NOFORN)

3. One of the provisions of this program called for the design and production of an indigenous medium tank with a new chassis, engine, and transmission. The tank program was to be based on Western and Soviet technology to be acquired through legal negotiations and subversive activities.[2] Approximately 200 of these tanks, designated the TR-77 (formerly the M-1978) have already been produced, and a newer version, designated the TR-800, is in the late stages of development and should be ready for deployment in the late 1980s.[3] From the correlation of photint [redacted] the following facilities (keyed to Figure 1) are known to be involved in the Romanian tank development program: 25X1

1. Bucuresti Army Research and Development Institute ICPM 111 25X1
2. Bucuresti Steel and Railroad Equipment Plant [redacted] 25X1
3. Mihai Bravu Tank Test Facility
4. Mizil Armored Vehicle Repair and Development Plant(S/WN/NOFORN)

[redacted]

DISCUSSION

4. The R&D work for the tank program is conducted at the Bucuresti Army R&D Institute ICPM 111 (Figure 2), which was created expressly for this purpose in late 1969 or early 1970.[3] The institute is on the Soseaua Oltenitei Highway in southeastern Bucharest. In 1969, this institute consisted of one multi-story administration/engineering building, one large vehicle storage building, and two support buildings. Over the years this facility has undergone major expansion, and now includes two new administration/engineering buildings and four new vehicle engineering/assembly buildings. Expansion of this facility indicates that the Romanian R&D program is progressing. In 1975 another institute, the National Institute for Thermal Engines, was created to do the R&D work on tank engines and to assist the Bucuresti Army R&D Institute.[2] This institute has not been located through photint. (C/WN/NOFORN)

[redacted] 25X1

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FIGURE 1. FACILITIES INVOLVED IN TANK PRODUCTION, ROMANIA

5. Although the Romanian tank program has been developing since the early 1970s, only the TR-77 has been identified on imagery. The TR-77 (Figure 3) is basically a longer version of the Soviet T-55. It is [redacted] without armor side skirts and [redacted] with them. The turret is similar to that on a Soviet T-55 tank and mounts a 100/105mm main gun with a muzzle brake. The secondary armament is a 12.7mm antiaircraft machine gun with one or two barrels. A 7.62mm coaxial machine gun and a laser range-finder are mounted on the right side of the turret. The tank also has six unevenly spaced roadwheels and can carry two external fuel drums. The tank was first deployed in mid-1980 at Topraisar Army Barracks 001 [redacted] It was then deployed to all the maneuver regiments in the 9th Motorized Rifle Division and in one tank regiment of the 57th Tank Division in Romania.[4] The TR-77s were subsequently withdrawn from these units for refurbishment between June and September 1983 and replaced by T-34 and T-55 tanks. (S/WN/NOFORN)

6. The TR-77 tank is produced at the Bucuresti Steel and Railroad Equipment Plant [redacted] 25X1 (Figure 4) on the southeastern edge of Bucharest. 25X1 The plant contains nine production/assembly buildings and numerous storage/support buildings. In late 1983, a large assembly building was completed on the southern edge of the plant. This is probably the building where the TR-77 is now produced. Another large assembly building is in the early stages of construction in the same area and probably will be the building where future prototype tanks, including the TR-800, will be produced. Because of limited coverage of this 25X1 plant, a canvas-covered TR-77 tank was only first observed [redacted] in a storage yard (inset, 25X1 Figure 4). On the same date, a second canvas-

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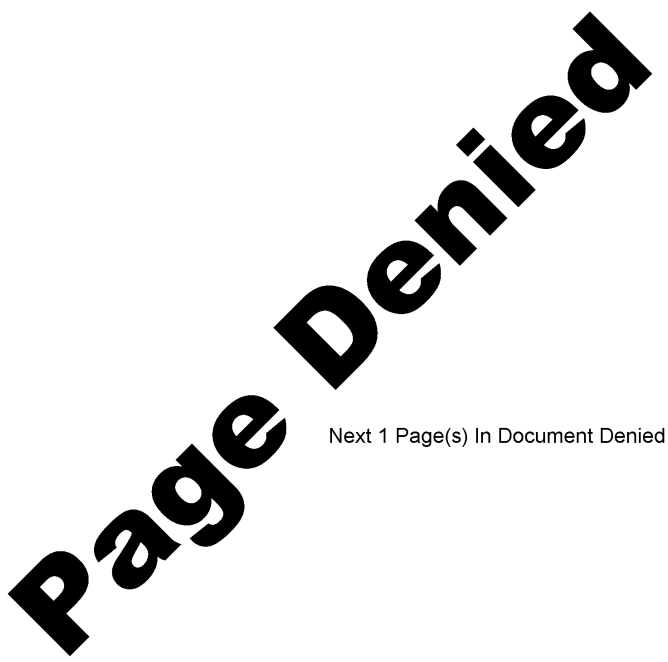

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covered possible tank was on a trailer being towed into the plant, and at least two possible tank turrets were on railcars near one of the assembly buildings within the plant. The observation of this equipment was the first confirmation of TR-77 tank production at this plant. Since that date, canvas-covered tanks have been seen on two other occasions. (S/WN)

R&D Testing

7. The TR-77 tank is tested at a recently identified tank-testing facility under construction in Mihai Bravu, approximately 20nm southwest of Bucharest. The Mihai Bravu Tank Test Facility (Figure 5), accessible by road and rail, consists of an acceleration test track approximately 805 meters long, a large high-bay vehicle test/maintenance building, a firing-in butt, two water leak-test basins, a vehicle gradient test facility, and a railroad loading dock. Vehicle tracks and the presence of five TR-77 medium tanks on [redacted] indicate that this facility is at least partially operational. Construction of the test facility began in early 1980 and was in the late stages as of November 1983. Completion of this test facility will greatly improve Romania's capability to test the TR-77 and the TR-800 tanks. No other known test facilities in Romania are as large or as well equipped. This new facility is probably not associated with nearby Mihai Bravu Army Barracks 002 [redacted] which has its own adjacent test/training area. (S/WN/NOFORN)

Repair and Maintenance

8. TR-77 tanks are repaired and maintained at Mizil Armored Vehicle Repair and Development Plant (Figure 6). This plant was involved in prototype and early TR-77 production until production was switched to the Bucuresti [redacted]

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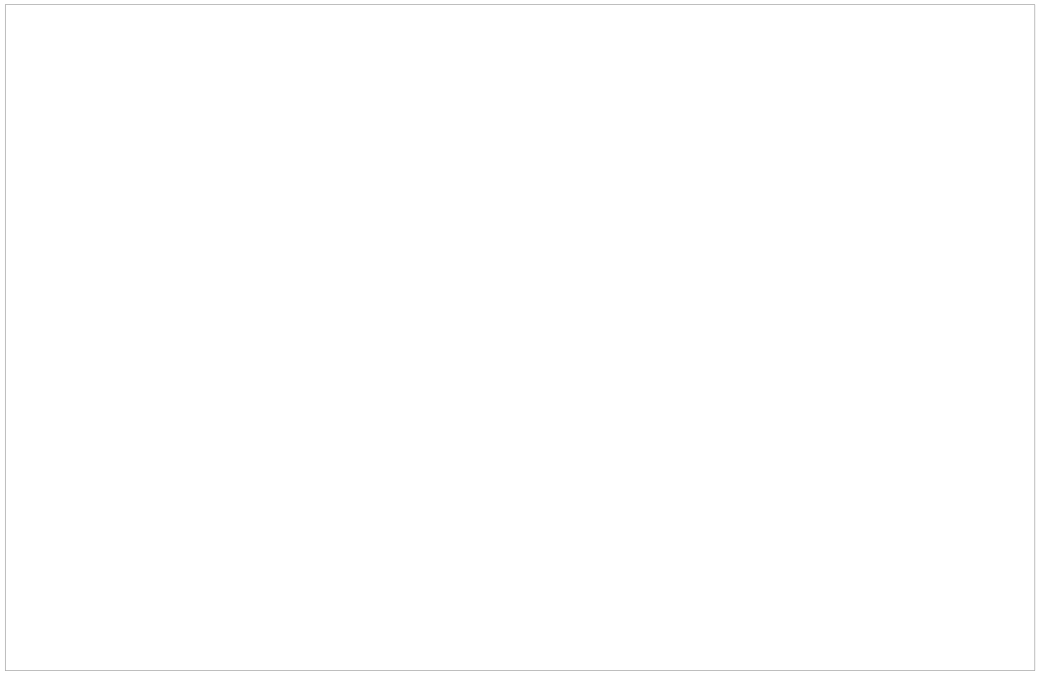

plant sometime during 1981. The Mizil plant consists of two final checkout buildings, two fabrication/assembly buildings, and 16 storage/support buildings. A water leak-test basin is on the northern edge of the plant and a small test track is north of the plant. This test facility is not as large or well equipped as the Mihai Bravu test facility. (S/WN)

25X1

Export of Tanks

9. On imagery of late February 1983, increasing numbers of dark-toned TR-77 tanks were observed parked adjacent to a large workshop at the Mizil plant. These tanks were taken into the workshop for refurbishment, including the application of a light-toned paint scheme. [redacted] 25X1 one light-toned TR-77 was observed exiting 25X1 the workshop in the direction of a nearby storage yard, where other light-toned TR-77 tanks were parked. As light-toned TR-77 tanks are not known to be in the Romanian inventory, the tanks were intended for export, probably to Egypt. (S/WN)

10. The TR-77 tanks refurbished at Mizil were withdrawn from the Romanian barracks to which they were originally deployed. Approximately 180-200 TR-77s were withdrawn from the units at the time refurbishment was in progress at Mizil. During this time, ground force units were reequipped with the previously withdrawn T-34 and T-55 tanks. Approximately 80 TR-77 tanks have been delivered to Egypt and stored at Al Maadi Ordnance Maintenance and Storage Depot Southeast [redacted] through November 1983. The 25X1 removal of the TR-77s from the barracks, the buildup of light-toned tanks in the storage yard at Mizil, and the shipping of the tanks preceded the arrival of TR-77 tanks in Egypt. (S/WN)

Conclusion

11. The expansion of the facilities associated with the Romanian tank production program indicates that the Romanians are serious about establishing their independence from the Soviet Union in terms of arms production. The Romanians appear to be investing time and money to make sure that the program continues at a steady rate and incorporates improvements over time so that their equipment can be competitive in the world arms market. (S/WN)

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2. US Army. IR 2 350 0037 83, *New Romanian Medium Tank,* 18 Mar 83 (CONFIDENTIAL/WNINTEL/ NOFORN)
3. DIA. DINSUM 88A-83, *Defense Intelligence Summary,* 5 May 83, page 3 (SECRET/WNINTEL/NOFORN/NO-CONTRACT/ORCON*)
4. DIA. DDB-1100-374-83, *Warsaw Pact Ground Force Structure Troop List Southwestern TVD (U),* Vol III, Jun 83 (SECRET/NOFORN)

*Extracted information is CONFIDENTIAL/NOFORN

RELATED DOCUMENTS

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CIA [redacted] *The 111th Tank Artillery Research Institute,* 23 Jun 83 (CONFIDENTIAL/WNINTEL/NOFORN) 25X1

[redacted] 25X1

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